

Notice of Allowability

Application No.

09/976,673

Applicant(s)

LUKYANOV ET AL.

Examiner

Robert B. Mondesi

Art Unit

1653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed September 9, 2006.
2. ☒ The allowed claim(s) is/are 1-4, 6-12 and 18-30.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

An extension of time under 37 CFR 1.136(a) is required in order to make an examiner's amendment which places this application in condition for allowance. During a telephone conversation conducted on September 21, 2006, Bret E. Field requested an extension of time for 1 MONTH(S) and authorized the Director to charge Deposit Account No. 50-0815 the required fee of \$120 for this extension and authorized the following examiner's amendment. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

5 **(Canceled)**

6. **(Currently Amended)** The nucleic acid according to Claim ~~[[5]]~~ 1, wherein said nucleic acid has ~~[[a]]~~ the sequence of SEQ ID NO: 11.

8. **(Currently Amended)** An isolated nucleic acid that hybridizes under stringent conditions to a nucleic acid selected from the group consisting of:

(a) a nucleic acid that encodes a fluorescent *Stichodactylidaen* protein having an emission maximum ranging from 620 to 680 nm; and

(b) a nucleic acid having a sequence identity of at least about 95% with SEQ ID NO: 11 that encodes a fluorescent protein;

 or its complementary sequence, wherein said stringent conditions are at least as stringent as hybridization at 42°C in a solution comprising 50% formamide, 5 × SSC, 50 mM sodium phosphate, 5 × Denhardt's solution, and 10% dextran sulfate followed by washing the filters in 0.1 × SSC at about 65°C.

Art Unit: 1653

10. **(Currently Amended)** An expression cassette comprising:
- (a) a transcriptional initiation region functional in an expression host;
 - (b) a nucleic acid selected from the group consisting of the nucleic acids of:
 - (i) a nucleic acid that encodes a fluorescent *Stichodactylidaen* protein having an emission maximum ranging from 620 to 680 nm; and
 - (ii) a nucleic acid having a sequence identity of at least about 95% with SEQ ID NO: 11 that encodes a fluorescent protein; and
 - (c) and a transcriptional termination region functional in said

expression host.

12. **(Currently Amended)** A method of producing an ~~an Anthozoan~~ a *Stichodactylidaen* chromo and/or fluorescent protein, said method comprising: growing a cell according to Claim 11, whereby said protein is expressed; and isolating said protein substantially free of other proteins.

19. **(Currently Amended)** A kit comprising:
a nucleic acid selected from the group consisting of:
- (i) a nucleic acid that encodes a fluorescent *Stichodactylidaen* protein having an emission maximum ranging from 620 to 680 nm; and
 - (ii) a nucleic acid having a sequence identity of at least about 95% with SEQ ID NO: 11 that encodes a fluorescent protein; and
- instructions for using said nucleic acid.

21. **(Currently Amended)** An isolated nucleic acid that hybridizes under stringent conditions to a nucleic acid that encodes a fluorescent protein wherein said nucleic acid has a sequence identity of at least about 95% with SEQ ID NO: 11 that encodes a fluorescent protein;
or its complementary sequence, wherein said stringent conditions are at least as stringent as hybridization at 42°C in a solution comprising 50% formamide, 5 ×

Art Unit: 1653

SSC, 50 mM sodium phosphate, 5 × Denhardt's solution, and 10% dextran sulfate followed by washing the filters in 0.1 × SSC at about 65°C.

22. **(Currently Amended)** A construct comprising a vector and a nucleic acid, wherein said nucleic acid has a sequence identity of at least about 95% with SEQ ID NO: 11.

23. **(Currently Amended)** An expression cassette comprising:

- (a) a transcriptional initiation region functional in an expression host;
- (b) a nucleic acid having a sequence identity of at least about 95% with SEQ ID NO: 11 that encodes a fluorescent protein; and
- (c) and a transcriptional termination region functional in said expression host.

25. **(Previously Presented)** The nucleic acid according to Claim 1, wherein said protein has one or more amino acid substitutions at positions 2, 36, 63, 143, 173, 201 and 204 as compared to [[a]] the wild type sequence comprising the amino acid sequence of SEQ ID NO: 1.

26. **(Previously Presented)** The nucleic acid according to Claim 1, wherein said protein has one or more amino acid substitutions at positions A2S, T36A, E63A, C143S, L173H, P201L and K204E as compared to [[a]] the wild type sequence comprising the amino acid sequence of SEQ ID NO: 1.

27. **(Previously Presented)** The nucleic acid according to Claim [[5]] 1, wherein said protein has one or more amino acid substitutions at positions 2, 36, 63, 143, 173, 201 and 204 as compared to [[a]] the wild type sequence comprising the amino acid sequence of SEQ ID NO: 1.

Art Unit: 1653

28. **(Previously Presented)** The nucleic acid according to Claim [[5]] 1, wherein said protein has one or more amino acid substitutions at positions A2S, T36A, E63A, C143S, L173H, P201L and K204E as compared to [[a]] the wild type sequence comprising the amino acid sequence of SEQ ID NO: 1.

29. **(Previously Presented)** The nucleic acid according to Claim 7, wherein said protein has one or more amino acid substitutions at positions 2, 36, 63, 143, 173, 201 and 204 as compared to [[a]] the wild type sequence comprising the amino acid sequence of SEQ ID NO: 1.

30. **(Previously Presented)** The nucleic acid according to Claim 7, wherein said protein has one or more amino acid substitutions at positions A2S, T36A, E63A, C143S, L173H, P201L and K204E as compared to [[a]] the wild type sequence comprising the amino acid sequence of SEQ ID NO: 1.

Conclusion

Claims 1-4, 6-12 and 18-30 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert B. Mondesi whose telephone number is 571-272-0956. The examiner can normally be reached on 9am-5pm, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jon Weber can be reached on 571-272-0925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

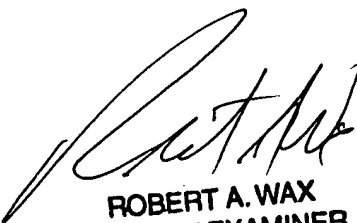
Art Unit: 1653

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Robert B. Mondesi

Robert B. Mondesi

ca - 22 - 06


ROBERT A. WAX
PRIMARY EXAMINER